Baker

September 16, 1997

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-6097

Mr. H.L. Page, General Manager
Plant Engineering and Asset Management
LTV Steel Company
Research Center
6801 Brecksville Road
Independence, OH 44131

Subject: Indiana Harbor Works - Clark Landfill
Proposal to Conduct Investigation of Recent Slope Failure
Assist LTV in Development of Clark Landfill Closure Approach
and Evaluate Configuration Changes to the No. 2 Pump House Intake Flume

Dear Mr. Page:

At the request of LTV Steel's Indiana Harbor Works Engineering Department, Baker Environmental, Inc. (Baker) developed and initiated an investigation of the Clark Landfill following the discovery of the August 6, 1997 slope failure. An initial site assessment was conducted by Baker personnel on August 6 and 8 and a subsurface drilling/sampling investigation was implemented the following week. In addition, Baker has been tasked with other activities as a result of project review meetings held on August 14 and September 4 as well as from several conference telephone calls.

The purpose of this letter proposal is to layout the anticipated scope of activities (both already performed and that expected) based on our best judgement, to assign budgetary costs to those activities, and to summarize expenditures to date. Because the scope of work/actions required are dependent upon the findings of the subsurface investigation, Baker cannot provide a detailed scope of work and not-to-exceed cost estimates. If desired, Baker will provide weekly budget status reports on labor and direct cost expenditures in addition to the weekly progress reports currently submitted.

SCOPE OF WORK

A. Subsurface Field Investigation

The purpose of the subsurface investigation is to get insight into why the slope failure occurred and what correction measures are needed for the future use of the slide area and adjacent flume. Borings were located to obtain cross section information through the slide area. Five borings were initially planned (Boring LTV #1 through LTV #5). These are shown on the attached drawing.

As a result of an independent review of the program, GAI Consultants recommended several modifications to the original program including taking boring LTV #4 deeper and into hard clay, adding a second piezometer in LTV #4 to monitor the bottom of the soft clay layer, and installing a sixth boring (LTV #6 at the high point of the landfill in line with borings LTV #3 and #4). Baker

concurred with these recommendations and also recommended that at least one, perhaps two additional borings be installed outside the impacted area (in the narrow portion of the landfill) to observe/evaluate and compare strength properties of the soils with the information obtained by the boring installed there in 1996. These borings are designated as LTV #7 and #8. Subsequently, Baker concluded that Boring LTV #8 is unnecessary at this time and it was eliminated from the ongoing program.

In summary, the subsurface investigation program consists of the following:

- Conducting an initial site inspection and developing a test boring/instrumentation plan
- Subcontracting drilling and laboratory testing services
- Drilling and sampling of seven borings
- Installation of inclinometer casing in six borings to determine if progressive movement is continuing in the slide mass.
- Installation of eight pneumatic piezometers in seven borings, including two in Boring LTV #4, to measure pore water pressure in the clay layer beneath the fill.
- Collection of thin-walled tube samples ("Shelby" tubes) of clay for geotechnical shear strength testing
- Performance of geotechnical tests including triaxial shear strength, moisture content, Atterberg Limits, density and unit weight.

Additional geotechnical testing (e.g., direct shear tests) recommended by GAI Consultants will be performed in GAI's laboratory. Costs of the tests performed by GAI Consultants are not included herein.

B. Monitoring of Field Instrumentation and Interpretation of Data

The pneumatic piezometers and inclinometers will be monitored by Baker for a period of about one month. Inclinometer readings will be taken daily for one week at the completion of the field installation. The initial reading (i.e., baseline reading) will be profiled/compared with subsequent readings to monitor for variations in the casing profile, which tracks progressive movement in the slide mass. If no movement is observed, then the reading frequency will be reduced to a weekly basis.

The pneumatic piezometers measure the water pressure in the clay layer beneath the fill. The purpose is to determine if there are high pore water pressures in the clay layer. Typically, excess pore pressure would dissipate following a slide. Piezometers readings will be taken at the same time as the inclinometer readings.

The inclinometers and piezometers also will serve as monitoring gages in the future to monitor real-time variations in movement/pore pressures as corrective construction progresses in the flume and

on the landfill. This monitoring will serve as a check that construction activities are not creating conditions causing further instability.

C. Performance of Slope Stability Analyses

Analyses will be performed using the computer program PC STABL Version 5.1M developed by Purdue University, June 1994. The program will calculate slope stability using both the simplified Bishop Method of Slices to determine the critical failure surface assuming a rotational failure, and the Janbu/sliding block method of analyses assuming a translational failure through the clay layer. The minimum Factor of Safety (F.S.) for static loading conditions will be determined for each failure mode. The program is a two-dimensional model that determines a critical failure surface (lowest factor of safety) for each section analyzed. Material properties used in the analysis will be interpreted from the laboratory tests and field results. Stability analyses will be performed along the slide to calibrate the model and adjust the material properties to correlate to the known slide conditions. The calibrated parameters will then be used for additional analyses at critical locations along the slope adjacent to the intake canal, including the narrow end of the landfill. In addition, analyses will be performed along the slope adjacent to the haul road (i.e., opposite side of the landfill).

Stability analyses will be performed on the current landfill profile (post-slide condition) as well as different landfill/flume configurations to evaluate toe buttress and landfill height/slope constraints. The extent of the modeling is heavily dependent upon the number of alternatives that are developed.

D. Conduct Hydraulic Analysis of Intake Flume and Prepare Permit Application for Emergency Dredging of the Intake Flume

Maintaining the required flow through the intake flume and the water supply to the No. 2 Pump House are of paramount importance. The approaching winter presents an immediate concern because water levels in Lake Michigan historically reach their low point in the winter and the presence of an ice cover could further constrict the water flow through the flume. Baker was tasked with examining the hydraulics of the flume and determining if dredging is required this year. If dredging is required, then Baker is to provide an estimate of the open-channel configuration required to maintain flow and the associated quantity of material to be dredged.

In addition, Baker was tasked with assembling a permit application to the U.S. Army Corps of Engineers (USACE) for an emergency dredging permit under Nationwide Permit No. 3 (Maintenance).

E. Develop Short-Term Plan to Safely Enlarge the Intake Flume Cross Section

Based on available data from the inclinometers, installed to date, Baker's preliminary conclusion is that no further movement has occurred. However, any material excavated from the flume has the

potential to cause movement of the landfill mass. As a result, the requirement to dredge the intake flume to assure the maintenance of the water supply must be carefully considered.

Using information from the slope stability analyses described above, Baker will develop a plan to dredge the flume while minimizing the potential for further movement of the landfill mass. Measures such as the installation of sheet piling injection grouting and removal of material from the bench adjacent to the flume to stabilize the mass may be investigated and modeled to assess their impact. It is anticipated that the dredging plan will include a description of how and where the flume should be dredged, required stabilization measures to be implemented (if necessary) and a monitoring program to be implemented during construction (i.e., frequent monitoring of the inclinometers for progressive movement of the slope).

F. Develop Conceptual Alternatives for the Final Closure of Clark Landfill and Long-Term Plan for Assuring the Integrity of the Water Supply

Baker has been tasked with developing a matrix of conceptual alternatives that consider "integrated" solutions for both final closure of the Clark Landfill and assuring the long-term viability of the water supply to Indiana Harbor Works. Because LTV is independently looking at replacement intake tunnel alternatives as well as a replacement intake structure, Baker is to focus on alternatives that deal directly with the intake flume (e.g., restoring the intake flume to its pre-slide condition, installation of a culvert and/or sheet pile channel, or backfilling the flume to create a toe buttress, among others). Baker will incorporate technical and cost information developed by LTV for flume alternatives.

In general, there appears to be two basic scenarios for the landfill and flume. The first is to backfill the flume sufficiently (with or without a means to convey water through the flume) to create a toe buttress that could be used to stabilize the slide and maximize available landfill disposal capacity. The second is to restore the flume and remove waste from the top of the landfill to improve the stability of the landfill slopes. It is anticipated that several alternatives will be developed, evaluated and costed for each of these scenarios.

Activities will include development of different landfill grading and cover plans/configurations, contouring and cross sections, cut/fill quantities required to regrade the landfill, estimates of quantities of cover material required and net available disposal capacity, unit costs, budgetary cost estimates for the various alternatives considered and preparation of a Alternative Concept Evaluation Matrix for distribution to LTV. It is likely that additional landfill stability analyses will be run for the alternatives examined to determine if a minimum acceptable F.S. can be achieved.

G. Participate in Progress Meetings and Telephone Conference Calls

To date, key Baker project personnel have attended two meetings (at Baker's Pittsburgh Office on August 14 and in Cleveland on September 4) and participated in several telephone conference calls.

It is anticipated that between now through review of the draft report of findings during the latter half of October, there will be several additional project status meetings and conference calls. Baker will prepare and distribute minutes of those meetings.

H. Prepare Report of Findings

Baker will prepare and submit a draft report of findings to LTV Steel for review and comment. As requested, the report will consist of two stand-alone sections:

- Investigation of the slope failure (Part I)
- Evaluation and recommendation of final disposition of Clark Landfill and the intake flume (Part II)

Part I will contain a description of the site history and slope failure, summary of the actions taken and investigations conducted, the findings from the site investigation, and development of the site model from the field/laboratory testing used for the stability analyses, and results of the analyses. The report will include test boring, inclinometer and piezometer records, interpreted cross sections used for the analysis, laboratory test data, stability analyses results and our conclusions relating to the cause of the failure and recommended actions necessary to minimize the possibility of additional slope failures.

Part II will consist of the evaluation of alternative long-term corrective measures for both the landfill and intake flume. Part II will be prepared using the Alternative Concept Evaluation Matrix and backup documentation describing the various alternatives considered, development of unit cost data, volume and quantity calculations and other supporting information.

Following a review meeting to present the conclusions and recommendations, and receipt of LTV's comments, the report will be revised and finalized. It is anticipated that 10 copies of the draft report and 20 copies of the final report will be prepared and submitted to LTV.

SCHEDULE

Key deliverables are expected by the following dates:

- The field investigation is on schedule and will be completed by September 19, 1997.
- Preparation of new topographic mapping based on aerial photography taken on August 22, 1997 is being performed by Kucera International under separate contract to LTV and is expected to be completed by September 19, 1997.
- Laboratory testing of samples is expected to be completed by September 26, 1997

- Performance of slope stability analyses using available field data have commenced. Based upon the expectation that new mapping will be available by September 19 and laboratory test results by September 26, stability analyses of the failure area and existing slopes will be completed by October 3, 1997. Additional analyses will be performed in support/evaluation of alternative landfill closure concepts.

- The draft report of findings will be submitted to LTV on October 15, 1997.

COST ESTIMATE

The budgetary cost estimate to perform the work described above is $285,000 which includes provision for the drilling and laboratory subcontractors, Baker labor and other direct costs (i.e., travel costs and reproduction expenses. A summary cost breakdown by task is provided in Table 1A and a breakdown of labor manhours by task is provided in Table 1B.

Baker proposes to conduct this work on a time and material basis in accordance with the rate schedules shown in Attachment A.

EXPENDITURES TO DATE

Baker's employees submit time sheets on a weekly basis documenting their activities for the previous week. This information is made available to project managers early the following week through Baker's computer-based financial management system.

Labor man-hours, hourly rates and total costs, including other direct costs, that have been charged to this project, are presented for the following periods on attached Tables 2 through 5:

TIME PERIOD	MAN-HOURS	TOTAL COST
• August 6 through 22, 1997 (Table 2)	329	$24,277
• August 23 through 29, 1997 (Table 3)	219	$13,920
• August 30 through September 5, 1997 (Table 4)	210	$15,831
• September 6 through 12, 1997 (Table 5)	280.5	$18,343

Total expenditures to date, not including subcontractors, are approximately $72,400. Costs incurred by subcontractors are not included in these amounts.

CLOSING

Project responsibility for the work covered in this proposal will rest primarily with Baker's offices in Pittsburgh and Beaver, Pennsylvania. Mr. Jack W. Harper will serve as Project Manager and will be supported by Mr. Jack Dziubek, Baker's chief investigator of the failure, and by Ms. Lois Muller, Baker's chief investigator for developing short-term and long-term solutions. As warranted, they will be assisted as necessary by the combined technical staffs of Baker Environmental and Michael Baker Jr., both wholly-owned subsidiaries of Michael Baker Corporation.

Michael Baker Corporation is dedicated to helping LTV resolve these matters as quickly and efficiently as possible and will commit whatever resources as Baker and LTV believe necessary.

If you have any questions or comments concerning this proposal, please contact Mr. Harper at 412/269-6070. If I may be assistance in any way or if you would like to discuss any other matter, please contact me at 412/269-6050 at your convenience.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Philip A. Shucet
President

JWH/PAS/dd
Attachments

cc: Sam DiCera - IHW Engineering

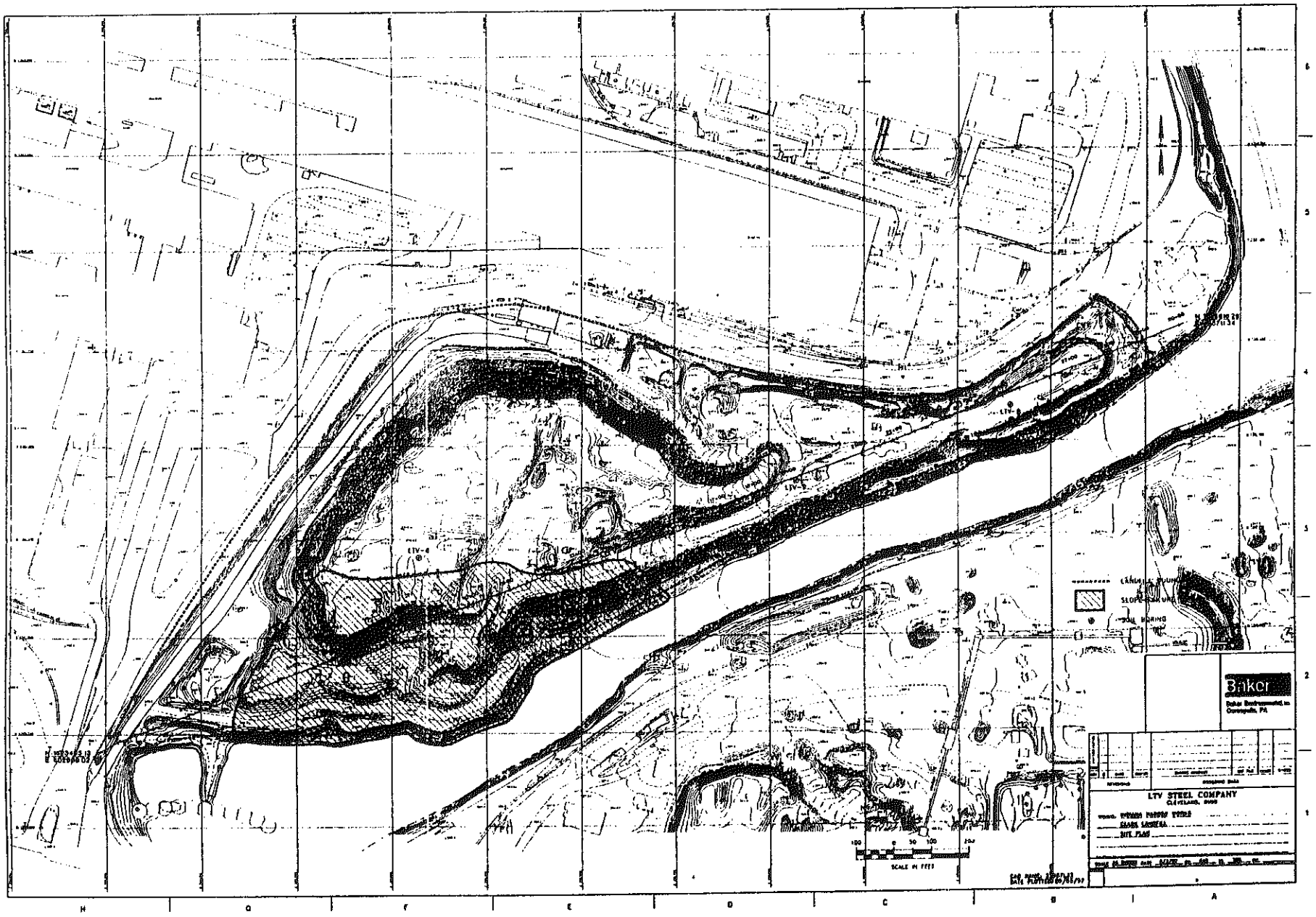
LTV STEEL COMPANY
CLEVELAND, OHIO
SCALE IN FEET
Baker

Table 1A

BREAKDOWN OF ESTIMATED COSTS BY TASK
FOR THE CLARK LANDFILL SLOPE FAILURE INVESTIGATION

TASK/DESCRIPTION	MAN HOURS	LABOR COST	ODCs	SUBCONTRACTORS	TOTAL COST
Task A -- Subsurface Field Investigation	807	$ 51,398.50	$ 10,000.00	$ 91,635.00	$ 153,033.50
Task B -- Monitoring of Field Instrumentation and Interpretation of Data	176	$ 13,375.00	$ 1,000.00	$ -	$ 14,375.00
Task C -- Performance of Slope Stability Analyses	274	$ 19,766.00	$ 3,000.00	$ -	$ 22,766.00
Task D -- Conduct Hydraulic Analysis of Flume and Prepare USACE Application	176	$ 11,315.00	$ 100.00	$ -	$ 11,415.00
Task E -- Develop Short-Term Plan to Enlarge Flume	184	$ 12,473.00	$ 1,000.00	$ -	$ 13,473.00
Task F -- Develop Conceptual Alternatives for Closure of Landfill and	428	$ 28,046.00	$ 1,500.00	$ -	$ 29,546.00
Task G -- Participate in Progress Meetings and Telephone Conference Calls	188	$ 16,878.00	$ 250.00	$ -	$ 17,128.00
Task H -- Prepare Report of Findings	304	$ 20,900.00	$ 2,000.00	$ -	$ 22,900.00
TOTAL	2537	$ 174,151.50	$ 18,850.00	$ 91,635.00	$ 284,636.50

Table 1B

BREAKDOWN OF ESTIMATED COSTS BY INDIVIDUAL
FOR THE CLARK LANDFILL SLOPE FAILURE INVESTIGATION

INDIVIDUAL	RATE	MANHOURS BY TASK								TOTAL HOURS	TOTAL COST
		TASK A	TASK B	TASK C	TASK D	TASK E	TASK F	TASK G	TASK H		
Baker Environmental, Inc.											
J. Harper	$ 120.50	24	12	10	16	8	24	40	24	158	$19,039.00
C. Parinella	$ 72.75	2	0	0	0	16	60	16	40	134	$9,748.50
W. Lundgren	$ 57.75	24	0	16	60	60	60	16	40	276	$15,939.00
W. Pelkey	$ 57.75	32	100	8	0	0	0	0	0	140	$8,085.00
L. Muller	$ 99.50	16	8	12	0	8	40	40	24	148	$14,726.00
G. Brandt	$ 62.00	0	0	0	0	4	40	0	16	60	$3,720.00
Steve Kramer	$ 72.75	0	0	0	40	24	20	8	16	108	$7,857.00
D. Gaviglia	$ 42.75	250	0	0	0	0	0	0	0	250	$10,687.50
R Wattras	$ 99.50	0	0	0	0	0	0	4	0	4	$398.00
Gwen Schell	$ 47.00	0	0	0	20	0	24	0	0	44	$2,068.00
Ron Lindsay	$ 44.00	0	0	0		0	0	0	0	0	$0.00
Dean Brodmerkel	$ 33.00	0	0	40	0	16	60	0	40	156	$5,148.00
D Dunlap	$ 35.25	0	0	0	0	0	0	0	0	0	$0.00
S Paswell	$ 28.00	0	0	0	8	8	16	16	16	64	$1,792.00
R Cline	$ 57.75	0	0	0	16	0	0	0	0	16	$924.00
M Krakar	$ 35.25	0	0	0	0	0	16	0	8	24	$846.00
G Heilman	$ 57.75	0	0	0	16	0	20	0	0	36	$2,079.00
	Total	348	120	86	176	144	380	140	224	1618	$103,057.00
Michael Baker Jr, Inc.											
INDIVIDUAL	**RATE**										
J Dziubek	$ 99.50	170	48	40	0	16	24	40	24	362	$36,019.00
J Lasko	$ 56.00	270	0	0	0	0	0	0	16	286	$16,016.00
James Henry	$ 57.75	2	0	0	0	0	0	0	0	2	$115.50
Rich Bell	$ 36.50	14	0	0	0	0	0	0	0	14	$511.00
Bill Stewart	$ 62.00	3	0	8	0	0	0	0	0	11	$682.00
Jan Zang	$ 72.75	0	8	140	0	24	24	8	40	244	$17,751.00
	Total	459	56	188	0	40	48	48	80	919	$71,094.50
									TOTAL		$174,151.50

TABLE 2

EXPENDITURES FROM AUGUST 6 THROUGH AUGUST 22, 1997				
RELATED TO THE CLARK LANDFILL SLOPE FAILURE INVESTIGATION				
INDIVIDUAL	CLASSIFICATION	RATE	HOURS	TOTAL
Baker Enviromental, Inc.				
Harper	Eng Mgr II	$ 120.50	17	$ 2,048.50
Parinella	Sr. Eng	$ 72.75	9	$ 654.75
Lundgren	Eng	$ 57.75	65	$ 3,753.75
Pelkey	Eng	$ 57.75	16	$ 924.00
Muller	Eng Mgr I	$ 99.50	24	$ 2,388.00
G. Brandt	Sr. Designer	$ 62.00	16	$ 992.00
Steve Kramer	Sr. Eng	$ 72.75	7.5	$ 545.63
J Mentz	Eng. Mgr. II	$ 120.50	5	$ 602.50
V Angus	Secretary II	$ 35.25	2	$ 70.50
D. Gaviglia	Asst Geo II	$ 42.75	38.5	$ 1,645.88
L Diday	Eng. Mgr. I	$ 100.75	2	$ 201.50
R Wattras	Project Mgr. I	$ 99.50	3	$ 298.50
		Total	205	$ 14,125.50
Michael Baker Jr., Inc.				
J Dziubek	Eng Mgr I	$ 99.50	64	$ 6,368.00
J Lasko	Geologist	$ 56.00	54	$ 3,024.00
James Henry	Eng	$ 57.75	2	$ 115.50
Rich Bell	Asst. Systems Analyst	$ 36.50	2	$ 73.00
Grannie Wolfe	Asst. Eng. II	$ 47.00	2	$ 94.00
		Total	122	$ 9,674.50
TOTAL LABOR COST			**327**	**$ 23,800.00**
Other Direct Costs (travel, reproduction, etc.)				**$ 477.16**
GRAND TOTAL				**$ 24,277.16**

Table 3

EXPENDITURES FROM AUGUST 23 THRU 29, 1997				
RELATED TO THE CLARK LANDFILLL SLOPE FAILURE INVESTIGATION				
INDIVIDUAL	CLASSIFICATION	RATE	HOURS	TOTAL
Baker Environmental, Inc.				
Harper	Eng Mgr II	$ 120.50	15	$ 1,807.50
Parinella	Sr. Eng	$ 72.75		$ -
Lundgren	Eng	$ 57.75	17	$ 981.75
Pelkey	Eng	$ 57.75	6	$ 346.50
Muller	Eng Mgr I	$ 99.50		$ -
G. Brandt	Sr. Designer	$ 62.00		$ -
Steve Kramer	Sr. Eng	$ 72.75	6	$ 436.50
J Mentz	Eng. Mgr II	$ 120.50		$ -
V Angus	Secretary II	$ 35.25		$ -
D. Gaviglia	Asst Geo II	$ 42.75	60	$ 2,565.00
L Diday	Eng. Mgr. I	$ 100.75		$ -
R Wattras	Project Mgr. I	$ 99.50	4.5	$ 447.75
Gwen Schell	Asst Eng II	$ 47.00	11	$ 517.00
Kurt Weiss	Clerk / Typist	$ 22.00	3.5	$ 77.00
Craig Schmitz	Eng	$ 57.75	0.5	$ 28.88
D Sappington	Asst Proj Mgr	$ 87.00	3	$ 261.00
Ron Lindsay	Designer	$ 44.00	0.5	$ 22.00
		Total	127	$ 7,490.88
Michael Baker Jr., Inc.				
J Dziubek	Eng Mgr I	$ 99.50	24	$ 2,388.00
J Lasko	Geologist	$ 56.00	60	$ 3,360.00
James Henry	Eng	$ 57.75		$ -
Rich Bell	Asst. Systems Analyst	$ 36.50	5	$ 182.50
Bill Stewart	Sr. Designer	$ 62.00	3	$ 186.00
Grainne Wolfe	Asst. Eng. II	$ 47.00		$ -
		Total	92	$ 6,116.50
TOTAL LABOR COST			219	**$ 13,607.38**
Other Direct Costs (travel, reproduction, etc.)				**$ 312.86**
GRAND TOTAL				**$ 13,920.24**

Table 4

EXPENDITURES FROM AUGUST 30 THRU SEPTEMBER 5, 1997				
RELATED TO THE CLARK LANDFILL SLOPE FAILURE INVESTIGATION				
INDIVIDUAL	CLASSIFICATION	RATE	HOURS	TOTAL
Baker Environmental, Inc.				
Harper	Eng Mgr II	$ 120.50	24	$ 2,892.00
Parinella	Sr. Eng	$ 72.75		$ -
Lundgren	Eng	$ 57.75	23	$ 1,328.25
Pelkey	Eng	$ 57.75	15	$ 866.25
Muller	Eng Mgr I	$ 99.50	10	$ 995.00
G. Brandt	Sr. Designer	$ 62.00		$ -
Steve Kramer	Sr. Eng	$ 72.75	5.5	$ 400.13
J Mentz	Eng. Mgr II	$ 120.50		$ -
V Angus	Secretary II	$ 35.25	2	$ 70.50
D. Gaviglia	Asst Geo II	$ 42.75	30	$ 1,282.50
L Diday	Eng Mgr I	$ 100.75		$ -
R Wattras	Pro Mgr I	$ 99.50	6	$ 597.00
Grainne Wolfe	Asst Eng II	$ 47.00		$ -
Gwen Schell	Asst Eng II	$ 47.00	6	$ 282.00
Kurt Weiss	Clerk/Typist	$ 22.00	0.5	$ 11.00
Craig Schmitz	Eng	$ 57.75		$ -
D Sappington	Asst Proj Mgr	$ 87.00	4	$ 348.00
Ron Lindsay	Designer	$ 44.00		$ -
Dean Brodmerkel	Technician	$ 33.00	3	$ 99.00
D Dunlap	Secretary II	$ 35.25	0.5	$ 17.63
S Paswell	Word Processing	$ 28.00	2.5	$ 70.00
R Cline	Eng	$ 57.75	7	$ 404.25
M Makar	Sr Word Process	$ 35.25	1	$ 35.25
E Kleinkauf	Geologist	$ 56.00	10	$ 560.00
		Total	150	$ 10,258.75
Michael Baker Jr., Inc.				
J Dziubek	Eng Mgr I	$ 99.50	23	$ 2,288.50
J Lasko	Geologist	$ 56.00	32	$ 1,792.00
James Henry	Eng	$ 57.75		$ -
Rich Bell	Asst. Systems Analyst	$ 36.50	5	$ 182.50
Bill Stewart	Sr. Designer	$ 62.00		$ -
		Total	60	$ 4,263.00
TOTAL LABOR COST			210	**$ 14,521.75**
Other Direct Costs (travel, reproduction, etc.)				**$ 1,309.51**
GRAND TOTAL				**$ 15,831.26**

Table 5

EXPENDITURES FROM SEPTEMBER 6 THROUGH SEPTEMBER 12, 1997 RELATED TO THE CLARK LANDFILL SLOPE FAILURE INVESTIGATION				
INDIVIDUAL	**CLASSIFICATION**	**RATE**	**HOURS**	**TOTAL**
Baker Environmental, Inc.				
Harper	Eng Mgr II	$ 120.50	10	$ 1,205.00
Parinella	Sr. Eng	$ 72.75	0	$ -
Lundgren	Eng	$ 57.75	40	$ 2,310.00
Pelkey	Eng	$ 57.75	16	$ 924.00
Muller	Eng Mgr I	$ 99.50	2	$ 199.00
G. Brandt	Sr. Designer	$ 62.00	0	$ -
Steve Kramer	Sr. Eng	$ 72.75	8	$ 582.00
J Mentz	Eng. Mgr II	$ 120.50	0	$ -
V Angus	Secretary II	$ 35.25	0	$ -
D. Gaviglia	Asst Geo II	$ 42.75	72	$ 3,078.00
L Diday	Eng Mgr I	$ 100.75	0	$ -
R Wattras	Pro Mgr I	$ 99.50	0	$ -
Grainne Wolfe	Asst Eng II	$ 47.00	0	$ -
Gwen Schell	Asst Eng II	$ 47.00	12.5	$ 587.50
Kurt Weiss	Clerk/Typist		0	$ -
Craig Schmitz	Eng	$ 57.75	0	$ -
D Sappington	Asst Proj Mgr	$ 87.00	0	$ -
Ron Lindsay	Designer	$ 44.00	0	$ -
Dean Brodmerkel	Technician	$ 33.00	0	$ -
D Dunlap	Secretary II	$ 35.25	2.5	$ 88.13
S Paswell	Word Processing	$ 28.00	0	$ -
R Cline	Eng	$ 57.75	0	$ -
M Krakar	Sr Word Process	$ 35.25	0	$ -
E Kleinkauf	Geologist	$ 56.00	0	$ -
G Heilman	Engineer	$ 57.75	10.5	$ 606.38
		Total	173.5	$ 9,580.00
Michael Baker Jr., Inc.				
J Dziubek	Eng Mgr I	$ 99.50	19	$ 1,890.50
J Lasko	Geologist	$ 56.00	71	$ 3,976.00
James Henry	Eng	$ 57.75	0	$ -
Rich Bell	Asst. Systems Analyst	$ 36.50	2	$ 73.00
Bill Stewart	Sr. Designer	$ 62.00	0	$ -
Jan Zang	Sr. Eng	$ 72.75	15	$ 1,091.25
		Total	107	$ 7,030.75
TOTAL LABOR COST			**280.5**	**$ 16,610.75**
Other Direct Costs (travel, reproduction, etc.)				**$ 1,732.57**
GRAND TOTAL				**$ 18,343.32**

ATTACHMENT A

BAKER ENVIRONMENTAL, INC.
Hourly Billing Rate Schedule
For
LTV Steel Company

CLASSIFICATION	Rate
Engineering/Project Manager II	$120.50
Engineering Manager I	$100.75
Project Manager I	$99.50
Assistant Engineering Manager	$87.00
Assistant Project Manager	$87.00
Senior Engineer	$72.75
Engineer	$57.75
Assistant Engineer II	$47.00
Assistant Engineer I	$36.50
Senior Geologist	$67.00
Geologist	$56.00
Assistant Geologist II	$42.75
Assistant Geologist I	$36.50
Senior Environmental Scientist	$66.50
Environmental Scientist	$52.25
Asst Environmental Scientist II	$41.50
Asst Environmental Scientist I	$34.75
Senior Industrial Hygienist	$72.75
Industrial Hygienist	$62.50
Assistant Industrial Hygienist II	$42.50
Assistant Industrial Hygienist I	$34.00
Senior Planner	$61.75
Senior Designer	$62.00
Senior Technician	$47.75
Designer	$44.00
Technician	$33.00
Assistant Engineering Technician	$27.75
Systems Analyst	$47.75
Assistant Systems Analyst	$36.50
Computer Operator	$26.25
Equipment & Supply Supervisor	$39.00
Field Construction Engineer	$51.75
Contracts Coordinator	$52.50
Executive Secretary	$41.00
Secretary II	$35.25
Word Processing Operator	$28.00
Reproduction/File Clerk	$22.00

**Hourly rates are effective through December 31, 1996.*

**Overtime rates for Non-Exempt Classifications as defined in the Federal Wage Hour Law of the Fair Labor Standards Act will be at the above rate x 1.3*

LTV Steel

Tabulation of Proposals

OVER 100,000 [X] FOREIGN [ ] PREMIUM [ ] PREMIUM AMOUNT

PROJECT TITLE	RFA/SRA	DATE	REF.-REQ.-REV. NO.
CLARK LANDFILL CLOSURE		7-29-97	P.O. # 567627
	WORKS: INDIANA HARBOR	BUYER: W.J. HOFFMAN	SUCCESSFUL BIDDER: BAKER

ITEM	QUANTITY	DESCRIPTION	UNIT 1	TOTAL	UNIT 2	TOTAL	UNIT 3	TOTAL	UNIT 4	TOTAL	UNIT 5	TOTAL
1.	1 LOT	FURNISH ENGR. SVCS REQD. FOR CLOSURE OF CLARK LANDFILL.	$98	810.-	ORIGINAL ISSUED		8/6/96					
			+ 70	707.-	CR-01	7/29/97	WAK	ADDITIONAL SERVICES				
			$169,	517.-								

RECOMMENDATION & JUSTIFICATION		1	2	3	4	5
	SUB-TOTAL					
	OTHER COST					
	ESCALATION					
	F.O.B.					
	TERMS					
	TOTAL COST					
	DELIVERY					
APPROVAL WAK DATE 7/29/97 APPROVAL DATE	VENDOR					
	DATE OF BID					